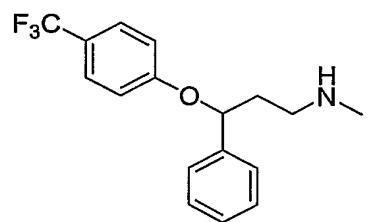
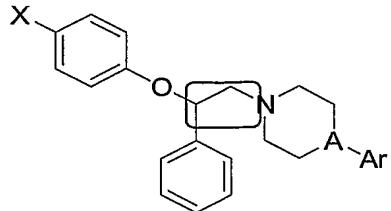
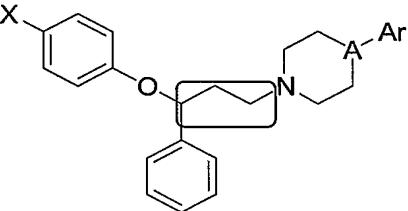
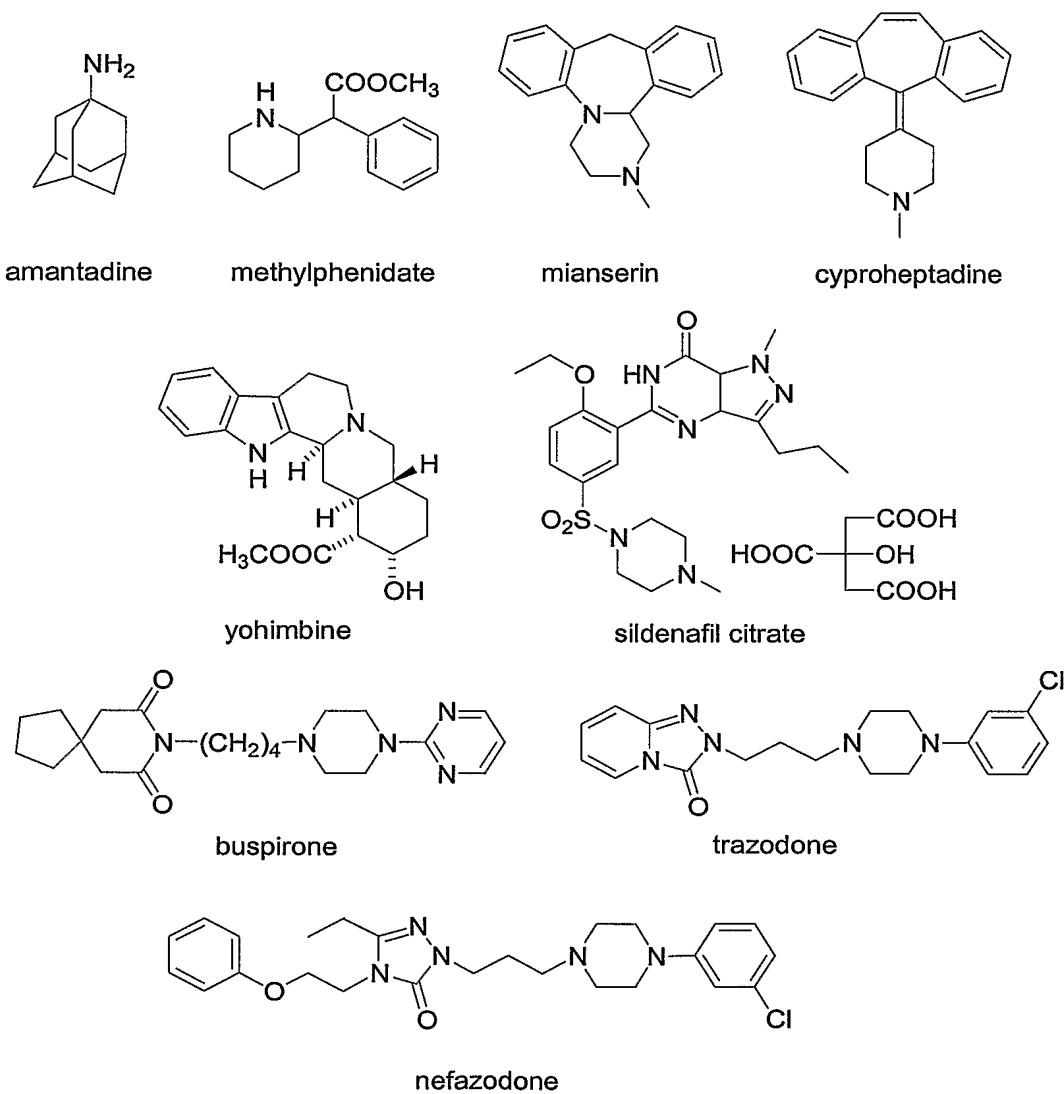
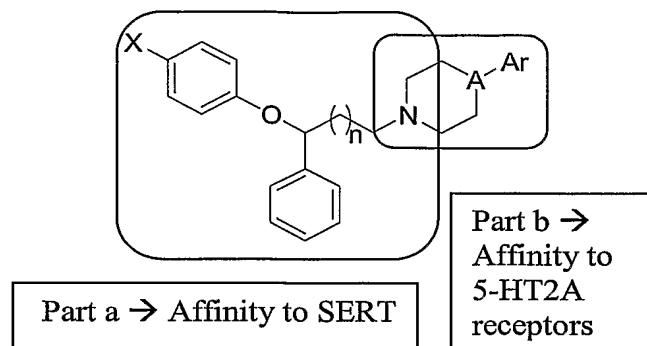


**Figure 1**

**Figure 2**

Homologues Type I	Homologues Type II
 <p><b>Aminoethane Derivatives</b> <math>X = F</math> or <math>CF_3</math> <math>A = N</math> or <math>C</math> (piperazine or piperidine) <math>Ar = \text{variety of aryl groups}</math></p>	 <p><b>Aminopropane Derivatives</b> <math>X = F</math> or <math>CF_3</math> <math>A = N</math> or <math>C</math> (piperazine or piperidine) <math>Ar = \text{variety of aryl groups}</math></p>

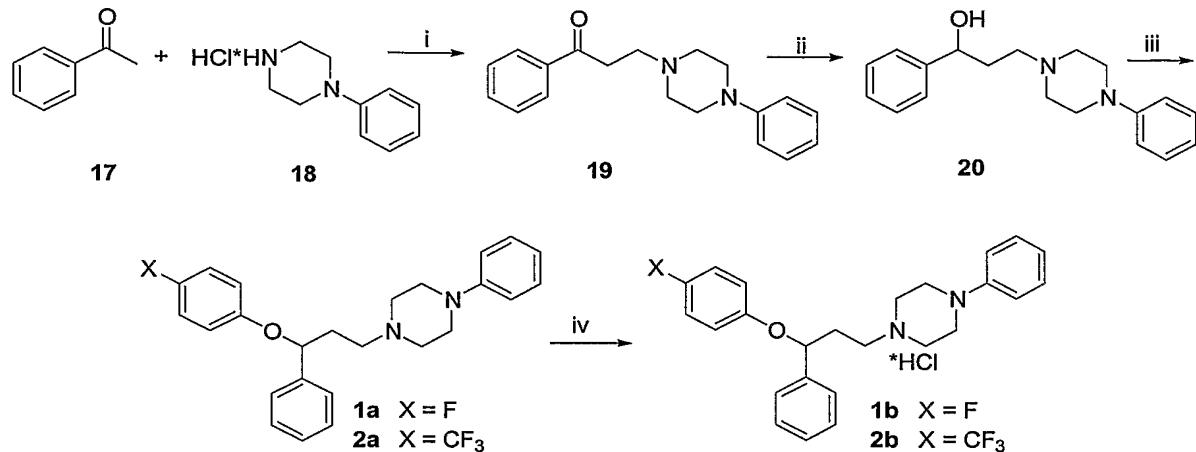
**Figure 3**

**Figure 4**

X = F or CF<sub>3</sub>  
n = 0 or 1 (ethyl or propyl chain)  
A = N or C (piperazine or piperidine)  
Ar = variety of aryl derivatives

## Figure 5

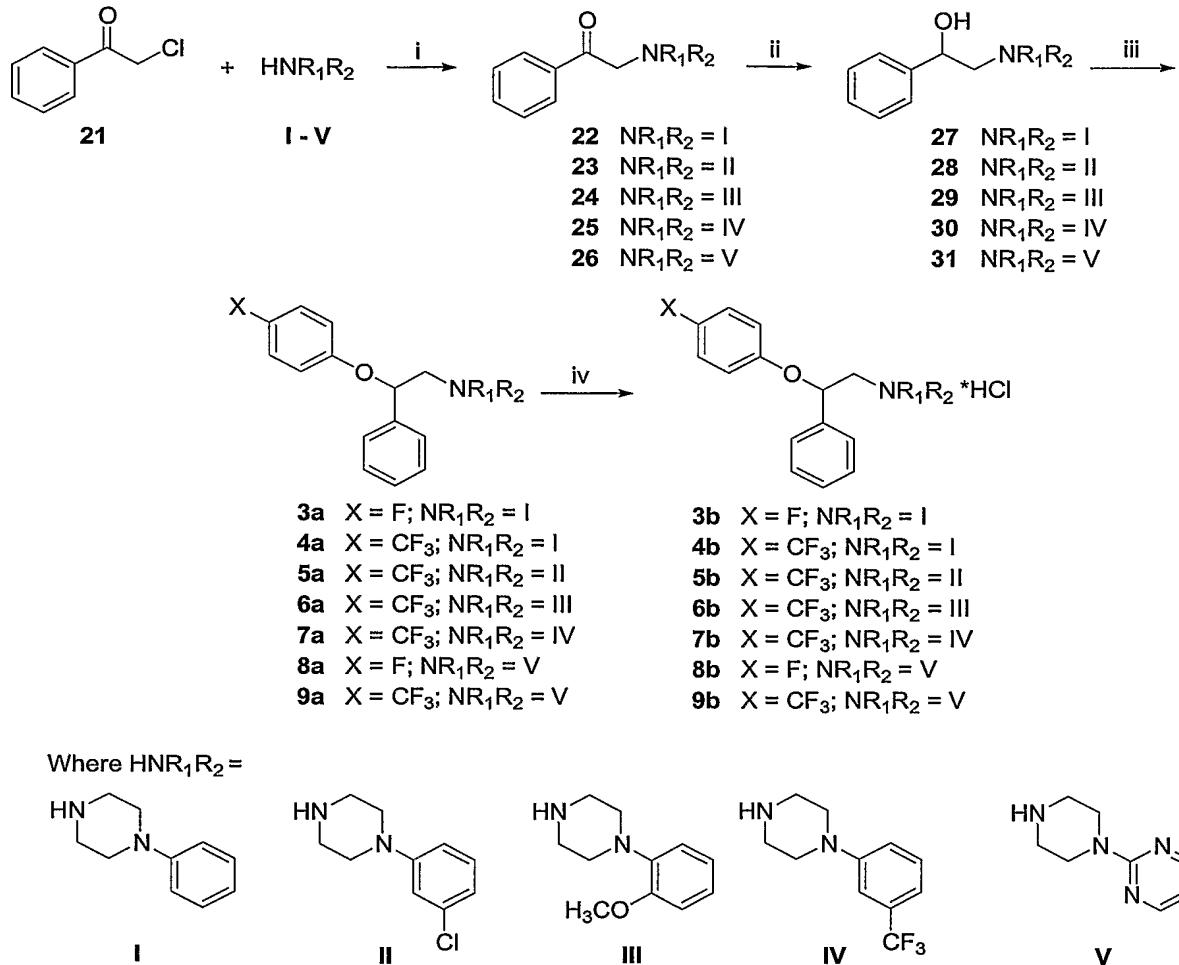
**Scheme 1.** Synthesis of Homologues Type II – Compounds 1 and 2.



*Reagents and conditions:* (i) Paraformaldehyde, cat. HCl, reflux 6h, 62%; (ii) NaBH<sub>4</sub> at 0°C, 8h at rt, 44-66%; (iv) THF, 4-fluorophenol or 4-trifluoromethylphenol, PPh<sub>3</sub>, DIAD dropwise at 0°C, 48h at rt, 54-72%; (v) 2M HCl in anhydrous ether, 41-46%.

## Figure 6

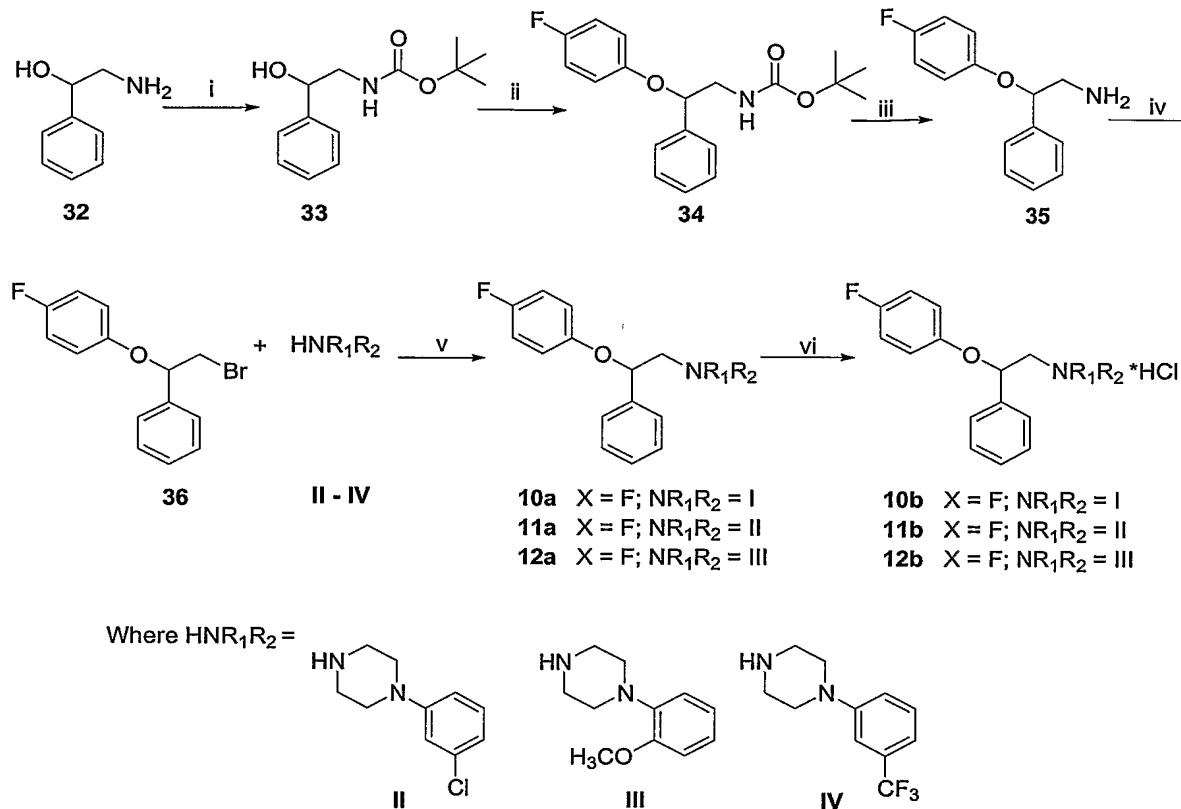
**Scheme 2.** Synthesis of Homologues Type I – Compounds 3 to 9.



*Reagents and conditions:* (i) K<sub>2</sub>CO<sub>3</sub>, Acetonitrile, reflux 16h, 53-59%; (ii) NaBH<sub>4</sub> at 0°C, 8h at rt, 91-95%; (iii) THF, 4-fluorophenol or 4-trifluoromethylphenol, PPh<sub>3</sub>, DIAD dropwise at 0°C, 48h at rt, 40%; (iv) 2 M HCl in anhydrous ether, 75-81%.

## Figure 7

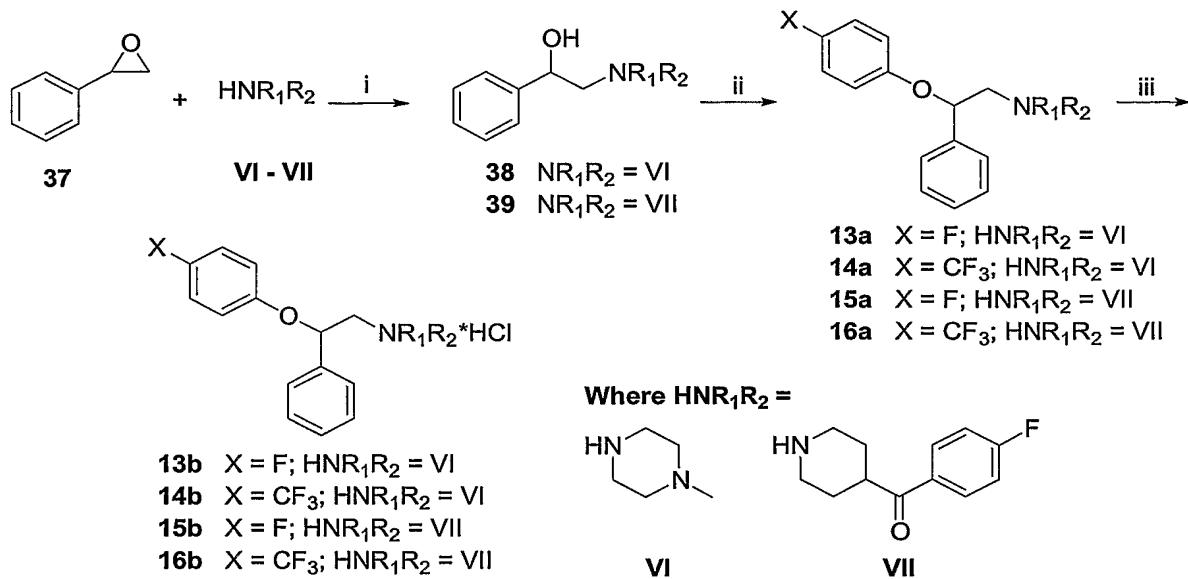
**Scheme 3.** Synthesis of Homologues Type I – Compounds 10 to 12.



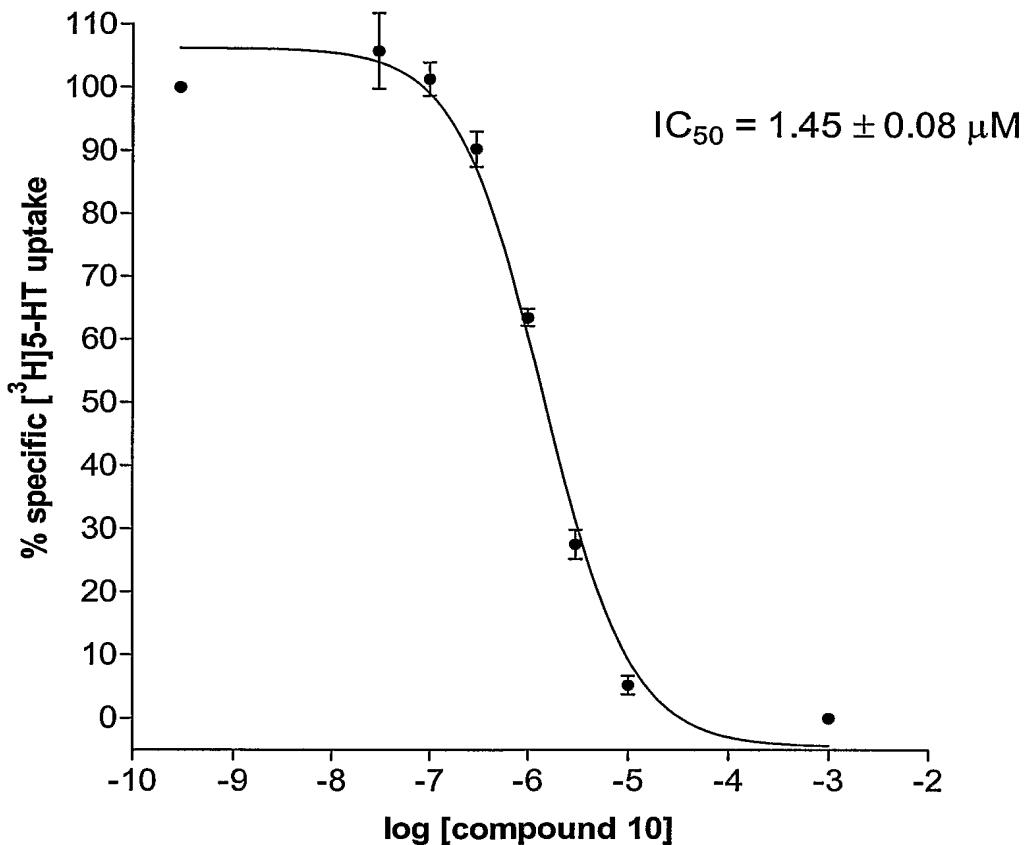
*Reagents and Conditions:* i) t-boc anhydride, DMF, 15 min at 50°C, 8h at rt, 78%; ii) DMF, 4-fluorophenol, PPh<sub>3</sub>, DEAD dropwise at 0°C, 8h at rt, 43%; iii) 4N HCl in Dioxane, 1.5h at rt, 64%; iv) DMF, TiBr<sub>4</sub>, t-butyl nitrite, 1 h at rt, 33%; v) K<sub>2</sub>CO<sub>3</sub>, DMF, reflux 16-18h, 18-39%; vi) 2M HCl in anhydrous ether, 9-68%.

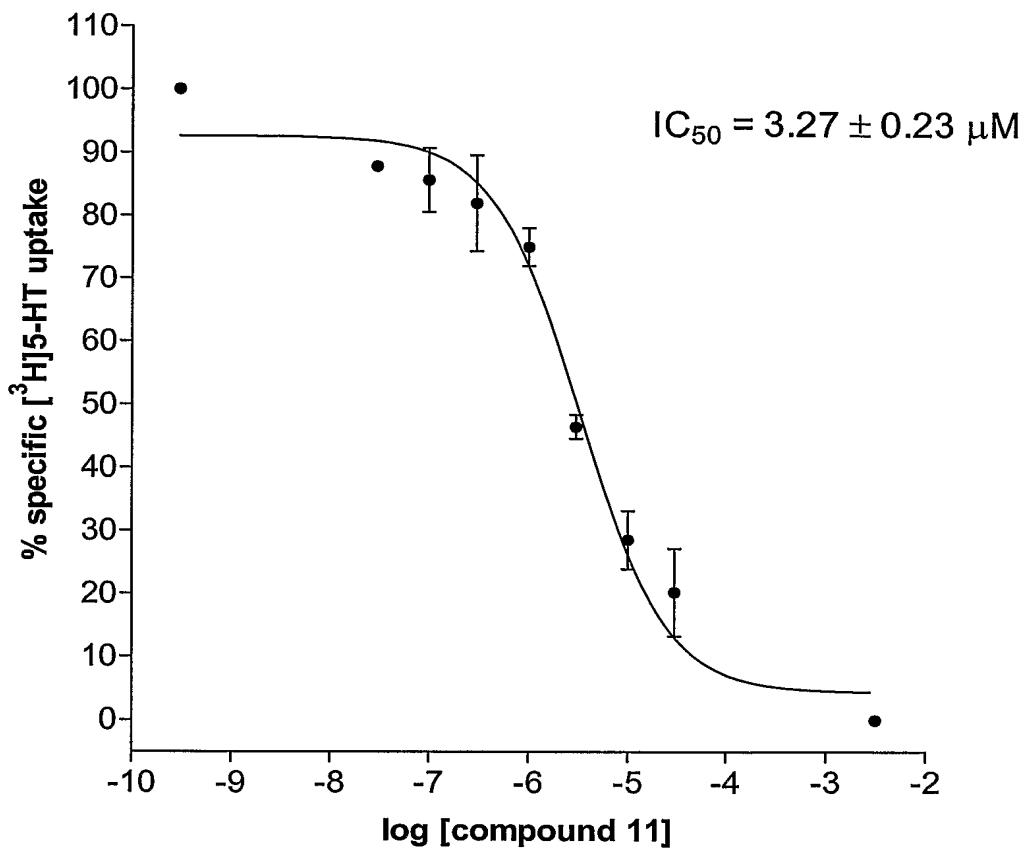
## Figure 8

**Scheme 4.** Synthesis of Homologues Type I – Compounds 13 to 16.



*Reagents and conditions:* (i)  $\text{K}_2\text{CO}_3$ , Dichloromethane, reflux 16h, 53-59%; (ii) THF, 4-fluorophenol or 4-trifluoromethylphenol,  $\text{PPh}_3$ , DIAD dropwise at  $0^\circ\text{C}$ , 48h at rt, 40%; (iii) 2 M HCl in anhydrous ether, 75-81%.

**Figure 9**

**Figure 10**

**Figure 11**